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# VISUALIZATION AS A CHIEF SOURCE OF THE PSYCHOLOGY OF HOBBS, LOCKE, BERKELEY AND HUME.

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Thought has often been designated, by prominent philosophical critics, a kind of natural language; but that, like language, it varies with different classes of individuals, and to what extent this fact may be regarded as the source from which arises the great variety of philosophical theory which exists in the world, has as yet been barely noticed. Just as men of different nationalities speak in different verbal languages, so do different types of individuals think in different thought-languages and, just as in the case of verbal languages, each thought-language is made up from various different sources, but has one dominant, characteristic foundation. In one type the characteristic thought-stuff may be visual, in another auditory, in another motor, and another we might perhaps conceive with Jäger to be based on the sense of smell. On every such fundamental *sensational* thought-stuff there is built up a further web of verbal thought-stuff, which consists in trains of words, each of which in turn is the name, mark, or sign of the other, and which, very much like a series of algebraic symbols, must be regarded as unknown quantities until, translated from one to another, they at last receive their values in the fundamental thought-stuff. The ordinary man never for a moment suspects the peculiar mental language in which he thinks, but lets his thoughts, however inconsistent and absurd, flow on uncriticized. His fundamental mind-stuff lies hidden beneath a veil of words. But the philosopher strips off this veil and lays bare, though not for himself yet for the critical onlooker, the true foundation. The work of the philosopher, in the light of our analogy, may be said to be the endeavor to translate the algebraic exposition of his mental life into the terms of his fundamental thought-stuff. And if such is the nature of philosophy, each distinct doctrine must be determined by, and can best be studied by becoming familiar with that particular thought-language which characterizes the mental temperament of the philosopher who presents it.

Taking this analogy as a standpoint, the object of the present paper is to offer a description and estimation of the sensationalist psychology in its first presentation by Hobbes, its development by Locke and Berkeley, and its culmination in the scepticism of Hume; in which an attempt will be made (1) to maintain that the predominating element in the thought of these men was Visualization, and (2) on the basis of this fact to offer a new criticism of the psychology of Sensationalism.

*Hobbes.*—Hobbes is the true precursor of Sensationalism. The following is a short summary of his psychology by Ueberweg:

“All knowledge grows out of sensations. After sensation there remains behind the memory of it, which may reappear in consciousness. The memory of objects once perceived is aided and the communication of the same to others made possible by signs, which we connect with our mental representation of these objects; for this purpose words are especially useful. The same word serves as a sign for numerous similar objects, and thereby acquires that character of generality which belongs only to words, and never to things. It depends on us to decide what objects we will always designate by the same word; we announce our decision by means of the definition. All thinking is a combining and separating, and adding and subtracting of mental representations; to think is to reckon.”

Knowledge according to Hobbes has two sides. (1) Knowledge of facts, on which side, is included (a) “sensations,” (b) “images,” “phantasms,” “remembrances,” “thoughts,” by all of which he means the same thing, (c) trains of images or thoughts. (2) Knowledge of the relations of facts which he calls general knowledge or science. But this second side of knowledge is not recognized as a truly mental process. It belongs to that portion of the mental language which we designated “verbal-stuff.” Though he recognizes it as the highest qualification of man, yet he cannot translate it into his sensational thought-language and hence cannot agree to call it a part of the mental process.

“For besides sense and thoughts and the train of thoughts, the mind of man has no other motion; though by the help of speech and method the same faculties may be improved to such a height, as to distinguish man from all other living creatures.”

It is plain from the above passage that Hobbes' sensational thought-stuff consists of these “thoughts” or “images.” These are the fundamental terms in which he conceives mind to think. And all we have to do now is to ascertain to what

particular mental language they belong. To do this we need only ask Hobbes himself what he means by an "image."

"An image, in the most strict signification of the word, is the resemblance of something visible: in which sense the fantastical forms, apparitions, or seemings of visible bodies to the sight, are only *images*; such as are the show of a man, or other thing in the water, by reflection or refraction; or of the sun or stars by direct vision in the air; which are nothing real in the things seen, nor in the place where they seem to be; nor are their magnitudes and figures the same with that of the object; but changeable by the variation of the organs of sight, or by glasses, and are present often times in our imagination, and in our dreams, when the object is absent; or changed into other colors and shapes, as things that depend only upon the fancy. And these are the *images*, which are originally and most properly called *ideas*, and *idols* and derived from the language of the Grecians with whom the word *ἰδέω* signifieth *to see*. They also are called *phantasms*, which is in the same language, *apparitions*. And from these images it is, that one of the faculties of man's nature, is called the imagination. And from hence it is manifest, that there neither is, nor can be any image made of a thing invisible.

"It is also evident, that there can be no image of a thing infinite: for all the images, and phantasms that are made by the impression of things visible, are figured; but figure is a quantity every way determined, and therefore there can be no image of God; nor of the soul of man; nor of spirits; but only of bodies visible; that is, bodies that have light in themselves, or by such enlightened."<sup>1</sup>

From this it is quite evident that Hobbes identifies the whole process of imagination with that of visualization. Hear him again identifying the whole intelligible process with that of "seeing" in his interpretation of the doctrine of the "philosophy-schools."

"But the philosophy-schools . . . . . teach another doctrine, and say, for the cause of vision, that the thing seen, sendeth forth on every side a *visible species*, in English, a *visible show*, *apparition*, or *aspect*, or *a being seen*; the receiving whereof into the eye, is *seeing*. And for the cause of *hearing*, that the thing heard, sendeth forth an *audible species*, that is an *audible aspect*, or *audible being seen*; which entering at the ear, maketh *hearing*. Nay, for the cause of *understanding* also, they say the thing understood, sendeth forth an *intelligible species*, that is, an *intelligible being seen*;

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<sup>1</sup> Leviathan, IV, 45.

which coming into the understanding makes us understand."

Here the only way in which he can understand the doctrine that a thing heard sends forth an audible species, is by viewing it as an "audible *being seen*;" and that a thing understood sends forth an intelligible species is by taking it to mean an "intelligible *being seen*."

The truth of the matter is that Hobbes can hardly speak without betraying the fact that in so far as he is a psychologist he is a visualizer.

"No man therefore can conceive anything, but he must conceive it in some *place*; and indeed with some *determinate magnitude*; and which may be divided into parts."

Thus, I think, no further evidence is necessary to show that the sensationalism of Hobbes is strictly speaking only visualization.

*Locke*.—To Locke's philosophy, as in every other philosophy, there are two sides; there is the side which he worked out and explained and the side which he assumed but could not explain, the side which he faithfully deduced from his own original system, and the side which consists in fragments which he plucked from tradition to fill up the gaps in the former. The one is the sensational side, or rather that portion of knowledge which he succeeded in translating into his own particular kind of "sensational thought-stuff," and the other is that portion which he failed to translate and which remains in the form of "verbal thought-stuff," or untranslated "algebraic symbolism." The former is his celebrated theory of ideas and is the side which concerns us here.

According to this, all knowledge has its origin in sensation and reflection, the latter being considered as internal sensation. The endless variety and vast complex of human thought he scientifically reduces to its atoms, which he designates by the term "simple ideas." These are the "materials of our knowledge," and are "imprinted" on the senses whether we will or not. In this primary stage of knowledge the mind is "for the most part passive." Each simple idea is a distinct existence in itself, and is impressed on the mind as words are inscribed on a sheet of blank paper. There is no other source from which knowledge, however abstract and general, can come. But these ideas can be combined and permuted in an endless number of ways, which combinations are called "complex ideas." In these latter the simple ideas are not conceived of as mixed or blended, they are only conjoined; so that it is not necessary to decompose a complex idea in order to get its simple elements—it is only necessary to mechanically separate them. Consciousness, then, he makes to consist in a series of ideas which pass through the

mind, one succeeding another "at a certain distance," somewhat after the fashion of a "train;" and from this fundamental view he goes on to show how the more complex and general forms of knowledge may arise. Now the question which demands attention is, What kind of sensationalism is it that is depicted here? What sort of sensational mind-stuff is at the bottom of such a theory?

The answer might be suspected at the outset if only Locke's method be observed. His method is that of introspection, and that in the strictest signification of the word. We find him constantly using such expressions as "if we look immediately into ourselves," "when the mind turns its view inwards," and many such terms all borrowed from the sense of sight. This at once suggests visualization. But let us see how he describes the results of his introspection. Speaking of the senses he says:

*Locke II, 11:2.*—"These alone \* \* are the *windows* by which *light* is let into this *dark room*; for methinks the understanding is not much unlike a closet wholly shut from light, with only some little opening left, to let in external *visible resemblances*, or ideas of things without."

In this passage the figure used to express the whole process of the understanding is taken from the sense of sight. The same kind of figure is used in his account of attention:

*Locke II, 19:3.*—"Sometimes the mind fixes itself with so much earnestness on the contemplation of some objects that it *turns their ideas on all sides*, remarks their relations and circumstances, and *views* every part so nicely, and with such intention, that it shuts out all other thoughts, and takes no notice of the ordinary impressions made then on the senses, which at another season would produce very sensible perceptions; at other times it barely *observes the train* of ideas that succeed in the understanding without directing and pursuing any of them; and at other times it lets them pass almost quite unregarded, as *faint shadows that make no impression*."

In his account of memory there is a remarkably strong tendency to visualization. He is constantly using such phrases as "ideas laid aside out of sight," "ideas lodged in the memory," "ideas imprinted on the memory," "dormant pictures;" and in one of the most eloquent passages of his book he describes the phenomena of forgetfulness thus:

*Locke II, 10:5.* "Thus the ideas, as well as children, of our youth often die before us, and our minds represent to us those tombs to which we are approaching, where though the brass and marble remain, yet the *inscriptions* are *effaced* by time, and the *imagery* moulders away. The *pictures drawn* in our minds are laid in *fading colors*, and, if not sometimes refreshed, *vanish and disappear*."

In the above passage we can see his description of consciousness as it is just going out—as it is becoming “not-consciousness.” And what does it amount to? Nothing more than a waning or fading of visual images. The “pictures” fade gradually, and when they have so faded as to be no longer visible they are in the realms of the forgotten—they are no longer parts of consciousness. This view of consciousness is again brought out very decidedly in his distinction between “clear” and “obscure” ideas.

*Locke II, 29:2.*—“The perception of the mind being most aptly explained by words relating to the sight, we shall best understand what is meant by clear and obscure in our ideas by reflecting on what we call clear and obscure in the objects of sight. Light being that which discovers to us visible objects, we give the name of obscure to that which is not placed in a light sufficient to discover minutely to us the figure and colors which are observable in it, and which in a better light would be observable. In like manner our simple ideas are clear when they are such as the objects themselves from whence they were taken did or might in a well ordered sensation or perception present them. Whilst the memory retains them thus and can produce them to the mind whenever it has occasion to consider them, they are clear ideas.

“So far as they either want any of the original exactness, or have lost any of their first freshness and are, as it were, *faded* or tarnished by time, so far they are obscure.”

The “clear” idea plays an important part in Locke’s psychology. Though perhaps he is not fully aware of it, it must in reality be the criterion of knowledge, as is shown in the theory as developed by Berkeley.

Again it is evident that that *static* and *passive* character of the mind, which is so striking a feature of the sensationalist psychology, is chiefly due to the influence of visualization.

*Locke Essay Bk. II, 1:25.*—“No man can be wholly ignorant of what he does when he thinks. These simple ideas, when offered to the mind, the understanding can no more refuse to have, nor alter, when they are *imprinted*, nor *blot them out*, and make new ones itself, *than a mirror* can refuse, alter, or obliterate the *images* or *ideas* which the objects set before it do therein produce.”

Locke does attribute an active character to the mind, but it is one of those processes he cannot explain—he has to leave it in the web of “verbal thought-stuff.” When he attempts to explain the activity of mind in the moral world—he distinctly implies its deadness and passivity as *intellect*. He there maintains that the “*idea* of the greatest good” cannot determine the activity of the will, but the thing necessary to such

determination is an "*uneasiness*"—the uneasiness of desire. He has to pass out from the sphere of dull, passive ideas or visual images and resort to other terms—"uneasiness."

Lastly, he speaks of consciousness as being a sort of "*train*" of ideas, each of which has a distinct existence in itself, and which, though separate and distinct, he assumes to have some sort of connection, but how or in what way he cannot discover. Now how does he come to have such a notion of the psychic process ?

*Locke II, 14:9.*—"I leave it to others to judge whether it be not probable that our ideas do, whilst we are awake, succeed one another in our minds at *certain distances, not much unlike the images in the inside of a lantern* turned round by the heat of a candle."

A visual figure again. I think nothing can be plainer than that this conception of thought as being a train of disconnected ideas, which have no connection in themselves but are tied together in some unknown way by some foreign tie, is just the outcome of the restriction of the whole psychic process to the partial process of visualization. In the process of vision one image comes and goes, another follows: we see both and can compare them; they may be like or unlike, but in between them is a blank—we see nothing. The visual train is a broken train: it may be connected, indeed, but the connection is not of vision—it is a foreign element. And just such we have seen to be the case with Locke's "*ideas*." The ideas themselves present no difficulties, but the relations of ideas are the stumbling block—they cannot be visualized and hence there is a tendency to discard them. Locke tries hard to get an idea for "*Substance*"—tries hard to visualize it, but he cannot, and what is the result? "*It is of no use in philosophy.*" Again he stumbles on the threshold of natural science. Natural science looks impossible to him. "*There can be no science of bodies,*" and why? Because "*. . . . the simple ideas whereof our complex ideas of substances are made up, are for the most part, such as carry with them in their own nature no visible necessary connection.*"

*Berkeley.*—Berkeley is the first of the philosophers under consideration to state his doctrine in the terms of the analogy with which we started out. He represents the whole system of thought as a Universal Language.

"Hence it is evident that those things which, under the notion of a cause co-operating, or concurring to the production of effects, are altogether inexplicable, and run us into great absurdities, may be very naturally explained, and have a proper and obvious use assigned to them when they are



considered only as marks or signs for our information. And it is the searching after and endeavoring to understand this Language of the Author of Nature that ought to be the employment of the natural philosopher; and not the pretending to explain things by corporeal causes, which doctrine seems to have too much estranged the minds of men from that Active Principle, that Supreme and wise Spirit "in whom we live, move and have our being."<sup>1</sup>

But though Berkeley's aim is to apply this Natural Language to the whole extent of thought, he has not, as we shall see later, succeeded. The language which he thus tried to apply was his own particular "thought-language" and was too narrow and limited to include all phases of thought. What this mental language is, is made very explicit in the first instalment of his philosophy, the "Essay towards a New Theory of Vision." It is the language of "visible ideas."

"... visible ideas are the language whereby the Governing Spirit on whom we depend informs us what tangible ideas he is about to imprint upon us, in case we excite this or that motion in our bodies."

At first he *consciously* extends this visual language to the whole content of thought and explicitly asserts that it is the Universal Language of Nature.

"Upon the whole, I think we may fairly conclude that the proper objects of vision constitute the Universal Language of Nature, whereby we are instructed how to regulate our actions in order to attain those things that are necessary to the preservation and well being of our bodies, as also to avoid whatever may be hurtful and destructive of them. It is by their information that we are principally guided in all the transactions and concerns of life. And the manner wherein they signify and mark out unto us the objects which are at a distance is the same with that of languages and signs of human appointment; which do not suggest the thing signified by any likeness or identity of nature but only by an habitual connection that experience has made us to observe between them."<sup>2</sup>

But later on in his philosophy he recognizes the vast extent of thought and the inadequacy of his language, to cover it. He therefore seeks a wider language—the language, not of 'visible ideas' but of "ideas." What he proved true of vision he seeks to show is true of the whole phenomenal world of sense. But in this he succeeded in doing little more

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<sup>1</sup> Berkeley Fr. Sel. p. 69.

<sup>2</sup> Berkeley, Theory of Vision.

than throwing a veil over his own eyes. What he did before knowingly and explicitly, he now does blindly and implicitly. Instead of broadening his language to suit knowledge, as he thought, he only narrowed knowledge to suit his language. His final Universal Language is nothing but the same old visual language, presented in faded colors. His theory of knowledge is easily recognized as a full acceptance and more thorough development of the visualization of Locke.

"All our ideas, sensations, notions, or the things which we perceive. . . . are VISIBLY INACTIVE—there is nothing of power or Agency included in them. So that one idea or object of thought cannot produce or make any alteration in in another."<sup>1</sup>

In this passage the static and inert character of the conscious process are forcibly insisted upon. The parts of thought are now strictly limited to the characteristics of visual images—they are "*visibly inactive*." And the resulting philosophy that there is no *necessary* connection, no such thing as cause and effect, existing between ideas, is for the first time strongly emphasized. Ideas can *resemble* or be like or unlike one-another, just as visual images can, but just like visual images again there can be no passage from one to the other—the '*between*' is a blank; there can be no necessary connection, no cause and effect.

From this same pictorial way of thinking arises also the denial of the possibility of knowledge of any active being, principle or relations.

"A little attention will discover to us that the very being of an idea implies *passiveness* and *inertness* in it, in so much that it is impossible for an idea to do anything, or, strictly speaking, to be the cause of anything; neither can it be the *resemblance* or *pattern* of any active being."<sup>2</sup>

Berkeley indeed recognized the existence of active being and relations but they are things which he cannot explain—he cannot express them from his visual point of view. We have no ideas of such, we have only some vague, far off clue to their existence—they do not come to us with the warmth of ideas, we only may be said to have some "notion" of them.

"We may be said to have some knowledge or *notion* of our own minds, of spirits and active beings, whereof in a strict sense we have not ideas. In like manner we know and have a *notion* of relations between things and ideas— . . . To me it seems that *ideas*, *spirits*, and *relations* are all in their

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<sup>1</sup> Berkeley, Fr. Sel. p. 45.

<sup>2</sup> Berkeley, Fr. Sel. p. 45.

respective kinds the object of human knowledge and subject of discourse . . . . ."<sup>1</sup>

Lastly, the visual character of Berkeley's mind is brought out clearly in his violent reaction against abstract ideas. For him to abstract was an insuperable difficulty.

"For my own part, whenever I attempt to frame a *simple idea* of Time, abstracted from the succession of ideas in my mind, which flows uniformly and is participated by all beings, I am lost and embrangled in inextricable difficulties. I have no notion of it at all."<sup>2</sup>

We need only go to his own confessions, to be convinced of his peculiar mental temperament. "I can imagine a man with two heads," he says, "or the upper parts of a man joined to the body of a horse. I can consider the hand, the eye, the nose, each by itself abstracted or separated from the rest of the body. But then whatever hand or eye I imagine, it must have some particular shape and color."

*Hume*.—In Hume we have the visualization psychology presented in its purest and simplest form. What Hume cannot visualize he will not admit as belonging to thought or consciousness at all, but considers as "illusion." He reduces the whole world, material and mental, to "impressions and ideas," the only difference between which being not of kind but of "force and vivacity." There is no such thing as material substance because we can have no visual expression of it. Neither, for the same reason, is there spiritual substance, nor cause and effect, nor personal identity. Mankind he regards as "nothing but a bundle of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement." Between these different perceptions there is no real connection nor continuity, no underlying substance nor cause and effect, which things cannot be *seen*, but their relations consist in "resemblance" and "contiguity" for the simple reason that these can be visualized. In his figure of the "theatre" the visual character of the mind is plainly enough depicted. Consciousness is a perpetual flux of totally different distinct and disconnected perceptions and nothing more. There are not even *vague* connections which can be properly called real parts of thoughts.

"The mind is a kind of *theatre*, where several perceptions successively make their appearance, pass, re-pass, glide away, and mingle in an infinite variety of postures and situations.

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<sup>1</sup> Berkeley, Prin. Hum. Kno. Sec. 89.

<sup>2</sup> Berkeley, Prin. Sec. 98.

“The comparison must not mislead us. They are the successive perceptions *only* that constitute the mind.”<sup>1</sup>

What more beautiful figure of visualization could we ask for than this ? When I introspect I am likened unto a spectator at a theatre, where I *see* the images pass and repass, etc.,” all processes recognized by vision, but with this difference that I am, as it were, on the stage myself and consequently see nothing but the characters in the play, having no view of the stage on which they act.

Taking it for granted that we have already seen sufficient particular evidence of dominant visualization in each of our authors, let us now look for a moment at one point of more general evidence.

It was discovered by Galton in his thorough investigations into the faculty of visualization that in the case of children and young people the power is usually at its best, but that as years advance, at least in the case of those who are accustomed to hard abstract thinking, it undoubtedly becomes impaired, and, to a great extent, replaced by “verbal images.” Now what application can we make of this fact to the case in question ? In the first place we find that Hobbes, at the time he wrote his philosophy, was an old man of sixty-four. And we also find that in him visualization, though indeed the *only* sensational part of his philosophy, was a comparatively small one. It was only a small portion of thought that he succeeded in translating into his visual mind-stuff. The web of verbal images had become so firmly woven into his mind, that, though conscious of the importance of the task, he was unable to strip it off from any of the higher processes of reason and general knowledge. He was himself fully aware of holding such a position and gave it good expression in the following passage :

“A man that hath no use of speech at all, such as is born and remains perfectly deaf and dumb, if he set before his eyes a triangle, and by it two right angles, such as are the corners of a square figure, he may by meditation compare and find that the three angles of that triangle are equal to those two right angles that stand by it. But if another triangle be shown him, different in shape from the former, he cannot know without a new labor whether the three angles of that also be equal to the same. But he that hath the use of words, when he observes, that such equality was consequent, not to the length of the sides, nor to any other particular thing in his triangle, but only to this that the sides were straight and the angles three; and that that was all for which he named it

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<sup>1</sup> Hume, Treat I. 4:6.

a triangle, will boldly conclude universally that such equality of angles is in all triangles whatsoever; and register his invention in these general terms, *every triangle hath its three angles, equal to two right angles.*"

Locke, too, was somewhat advanced in years when he presented his philosophical works—about the age of fifty-eight; and, as we have seen, his philosophy, like Hobbes', was under the necessity of leaving a great part of the verbal web untranslated. He tried hard to bring everything within the domain of vision, but he couldn't—his visual power being too dim, his verbal too strong.

In Berkeley and Hume we have the philosophy of youth. At the age of 25 both these men had completed their chief philosophical works. And, here again we have an illustration of Galton's results. Their powers of visualization were much higher than in the case of the former two men—so high, in fact, that they could visualize enough to make them believe that anything they couldn't visualize did not exist.

If what has already been said be true there must needs be a radical change made in the usual methods of criticizing the Humian psychology. In suggesting such a change I shall try to establish the following points: (a) The *method* of this school is right and its error consists in its incompleteness. (b) A wider sensationalism will overcome its difficulties.

(a) For our present purpose no better statement of the relative position of this psychology in the history of philosophy could be desired than that given by Professor James in that admirable chapter on "The Stream of Thought."

"If to hold fast and to observe the transitive parts of thought's stream be so hard, then the great blunder to which all schools are liable must be the failure to register them, and the undue emphasizing of the more substantive parts of the stream. . . . Now such ignoring as this has historically worked in two ways. One set of thinkers have been led by it to *sensationalism*. Unable to lay their hands on any coarse feelings corresponding to the innumerable relations and forms of connection between the facts of the world, finding no *named* subjective modifications *mirroring* such relations, they have for the most part denied that feelings of relation exist, and many of them, like Hume, have gone so far as to deny the reality of most relations *out* of the mind as well as in it. Substantive psychoses, sensation and their copies and derivatives, juxtaposed like dominoes in a game, but really separate, everything else verbal illusion—such is the upshot of this view. The *Intellectualists*, on the other hand, unable to give up the reality of relations *extra mentem*, but equally unable to point to any distinct substantive feelings in which they

were known, have made the same admission that the feelings do not exist. But they have drawn an opposite conclusion. The relations must be known, they say, in something that is no feeling, no mental modification, continuous and consubstantial with the subjective tissue, out of which sensations and other substantives are made. They are known, these relations, by something that lies on an entirely different plane, by an *actus purus* of thought, intellect or reason, all written with capitals and considered to mean something unalterably superior to any fact of sensibility whatever."

The criticism that is generally passed on the Humian psychology is that its very foundation is unsound—that its very method, that of sensationalism, must of necessity lead to scepticism, as is so excellently illustrated in the case of Hume. It begins, it is maintained, at the wrong end of knowledge. In order to explain knowledge we must not commence with sensation, but with thought, pure and undefiled by natural processes. Sensationalism, from its essential nature, must have "breaks"—it cannot supply the 'transitive' parts of consciousness. It can find a series of conscious states, but *only* a series. There can be no continuity running through them—there can be no connecting links between them. In order to such a continuity there must be an "*actus purus*" of thought. Now whatever be the faults of this method of psychology, it will become clear enough to any one who gives the matter fair consideration, that such a criticism and proposal of amendment can make it no better. Whatever be the value of pure thought in the wider domain of philosophy, for psychology it is not only useless, but nonsense. However pure and abstracted from feeling thought may appear to the disinterested onlooker, for the thinker himself it can never be present without some degree of warmth and feeling—it must always be present in terms of that same subjective mind-stuff of which our most familiar sensations and feelings are made up. So that if the Humian psychology fails to explain knowledge and leads to scepticism, it is not, at least from the psychological point of view, because it commences at the wrong end—not because its method and fundamental groundwork carry within their own nature the sceptical germ. Its aim and method is that of a complete sensationalism—that is, to make all parts of thought consist of the same continuous subjective thought-tissue; and this is the true method of psychology. The tendency to scepticism is not the outcome of this method—at least it has not yet been shown to be. Undoubtedly the rejoinder to this will be to point to Hume as a glaring practical illustration of scepticism being a consistent and the only consistent development of the sensationalist

method. But this, I maintain, is unfair. The scepticism of Hume, as we have seen, is not the consistent outcome of *sensationalism*, but of *visualization*. It is not a philosophy resulting from being built on an unsound foundation, but from being built on one side only of a many sided foundation, and that only a particular and limited degree of that side. How a wider sensationalism both as an extension to the other senses and as a modification and more thorough development of visualization itself, may overcome many of the difficulties of Hume, will be suggested in our next point.

The psychological school which we have been considering is not only the outcome of visualization but of a particular degree of visualization. Galton in his experiments found that the degree in which this faculty exists in men is almost as varied as are the men themselves. Now if this be the case the philosophies resulting from visualization may be very different, and the faults and difficulties of one may be triumphed over in another, so that in this respect we can see the first possibility of a broader and more thorough development of sensationalism. To see the truth of this we need only resort to an illustration. Take for example the different interpretations of the concept or general ideas that have been given by visualizers :

The concept-theory with which the Humian psychology is identified is nominalism. According to this doctrine there is no general idea—the generality consists only in the name. The idea itself is some *distinct, particular* idea that has some time or other presented itself to the senses. It must have, Berkeley says, “some particular *shape* and *color*,” and the only general quality which can be attributed to it is that it is “made to represent or stand for all other particular ideas of the same sort.” This is a doctrine which results from one particular degree of visualizing power, but it is not the only one—there may be others.

In speaking of the visualizing faculty Galton says : “In the highest minds a descriptive word is sufficient to evoke crowds of shadowy associations, each striving to manifest itself. When they differ so much from one another as to be unfitted for combination into a single idea, there will be a conflict, each being prevented by the rest from obtaining sole possession of the field of consciousness. There could therefore be no definite imagery so long as the aggregate of all the pictures that the word suggested of objects presenting similar aspects, reduced to the same size, and accurately superposed, resulted in a blur. . . . ” If I mistake not, this resulting “blur” is very much like the concept described by certain upholders of conceptualism. Indeed, I think the word “blur” among the

members of this school is quite currently considered a happy term. This, then, may be considered as another modification of a visual doctrine of concepts. But this is not all—there may be others still.

Huxley, speaking of the concept, says :

“This mental operation may be rendered comprehensible by considering what takes place in the formation of compound photographs—when the images of the faces of six sitters, for example, are each received on the same photographic plate, for a sixth of the time requisite to take one portrait. The final result is that all those points in which the six faces agree are brought out strongly, while all those in which they differ are left vague ; and thus what may be termed a *generic* portrait of the six in contra-distinction to a *specific* portrait of any *one* is produced.”

Here we have another phase of conceptualism brought to light through the scientific conception that generic images can be imprinted on the sight after the fashion of photography. In this case the generic character does not consist in the name, it is in the idea. Neither is the idea a “blur,” it is clear and distinct. To what extent this degree of visualization exists in the world I cannot say, but there can be no doubt as to its possibility.

Besides this possibility of a broader psychology by means of variations in this one sense, there is a further possibility of the same, and on a more extensive scale, in the more harmonious development and co-operation of the other senses. Not only with such men as Hume, but with almost all men, there is a proneness to identify the whole sphere of consciousness with visualization. Our very language is a good index to this fact. When we wish to convey the idea that we understand, we invariably say that we “*see*.” Again it is quite common and considered proper enough to speak of “degrees” of consciousness, some states being considered as quite “clear,” others “fairly clear,” and others “dim.” If we have a “clear” idea of a thing we say that our consciousness of that thing is fully realized ; if we have only a dim idea of it we say it is only partially realized, but that it is nevertheless all there in a potential state. Now, as is very clearly set forth by Professor James, an idea of an obscure or dim object is just as much consciousness as that of a clear one—the *consciousness*, if we are going to use the term at all, is just as “clear” in the one case as in the other. The truth is that the words “clear” and “obscure” are not properly applicable to consciousness as such. Again by a great many people the greater part of mental life—the passions, the sensations connected with the more unfamiliar senses, the motor sensations,



the visceral sensations, and perhaps many sensations connected with hearing, are not recognized as consciousness at all, all of which are in reality as truly conscious activities as the clear and distinct phenomena of vision. In this we can see the foundation of that strangely contradictory doctrine of "*unconscious mental states.*" Many of our facts of consciousness come to us, as it were, already made up. We are left only the pleasure of analyzing them; all the nice rational synthetic work seems to have been performed by some other consciousness, or perhaps to a more physiological cast of mind it may seem to have been done by the nervous system. Such activities are *known* to be mental—they could not be otherwise, but still we know that "*we*" have not been conscious of them, and hence they have been called by such names as 'latent reason' and 'unconscious mental states.' This condition of mankind seems very much like a normal hypnotic state in which all senses excepting sight are anaesthetic; in which they perform their work, not on purely mechanical principles, but in *secondary personalities* which do not participate in the primary visual consciousness. A good illustration of this is seen in some of M. Binet's Salpêtrière subjects:

"Things placed in the hand were not felt, but *thought* of (apparently in visual terms), and in nowise referred by the subject to their starting point in the hand's sensation. A key, a knife, placed in the hand occasioned *ideas* of a key or a knife, but the hand felt nothing. Similarly the subject *thought* of the number 3, 6, etc., if the finger was bent three or six times by the operator, or if he stroked it three, six, etc., times.

"In certain individuals there was found a still odder phenomenon, which reminds one of that curious idiosyncrasy of 'colored hearing, of which a few cases have been lately described with great care by foreign writers. These individuals, namely, *saw* the impression received by the hand, but could not feel it; and the thing seen appeared by no means associated with the hand, but more like an independent vision, which usually interested and surprised the patient. Her hand being hidden by a screen, she was ordered to look at another screen and to tell of any visual image which might project itself thereon. Numbers would then come, corresponding to the number of times the insensible member was raised, touched, etc. Colored lines and figures would come, corresponding to similar ones traced on the palm; the hand itself or its fingers would come when manipulated, and finally objects would come, but on the hand itself nothing would ever be felt."<sup>1</sup>

It seems, just as in the cases quoted, that, the larger por-

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<sup>1</sup> James' Psychology, part I, p. 204.

tions of our conscious life which we are liable to recognize as conscious are those which manage to translate themselves into visual terms; on which account the largest part of the content of consciousness is lost to view; all its finer connections and beautiful continuity remain, concealed in the anæsthetic senses, outside the primary consciousness, in regard to which they are blindly evolved and worked out by minor personalities.

That this is an injustice to consciousness, no proof is necessary. The remedy also is plain. It is obvious enough that what is needed for a more complete view of consciousness is a more equal emphasizing and more harmonious development of the senses. In support of the value of this suggestion I am not able to go very far. I shall only give an illustration which I hope will show the possibility of the method; and for this let us take the case of Hume, the arch-visualizer of our theme.

In the case of the passions Hume has a philosophy very different in many respects from that which he proposed for the intellect. Here he is not confronted with the difficulties with which he was surrounded in his theory of ideas—he meets with no isolated substantives which he cannot connect, but finds a beautiful continuity of consciousness; and though owing to his natural prejudice he is unable to recognize it as a process of consciousness, yet it must be considered of great value as an illustration of a more adequate view of thought being derived from other senses than that of sight. The sense he makes use of in the illustration which I refer to is that of hearing.

“Now if we regard the human mind, we shall find, that with regard to the passions, ’tis not of the nature of a wind instrument of music, which in running over all the notes immediately loses the sound after the breath ceases; but rather resembles a string-instrument where after each stroke the vibrations still retain some sound, which gradually and insensibly decays. . . . each stroke will not produce a clear and distinct note of passion, but the one passion will always be mixed and confounded with the other. According as the probability inclines to good or evil, the passion of joy or sorrow predominates in the composition: because the nature of probability is to cast . . . a superior number of returns of one passion or since the dispersed passions are collected into one, a superior degree of that passion. That is, in other words, the grief and joy being intermingled with each-other, by means of the contrary views of the imagination, produce by their union the passions of hope and fear.”<sup>1</sup>

To show how admirably this figure will allow of the proper

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<sup>1</sup> Hume Treat. II. 9.

unity and diversity of these passions I shall quote still further.

"The passions of fear and hope may arise when the chances are equal on both sides, and no superiority can be discovered in the one above the other. Nay, in this situation the passions are rather the strongest, as the mind has then the least foundation to rest on and is tost with the greatest uncertainty. Throw in a superior degree of probability to the side of grief, you immediately see that passion diffuse itself over the composition, and tincture it with fear. Increase the probability, and by that means the grief, the fear prevails still more and more, till at last it runs insensibly, as the joy continually diminishes, into pure grief. After you have brought it to this situation diminish the grief after the same manner that you increased it; by diminishing the probability on that side and you'll see the passion clear every moment, till it changes insensibly into hope; which again runs, after the same manner, by slow degrees, into joy, as you increase that part of the composition by the increase of the probability. Are not these as plain proofs, that the passions of fear and hope are mixtures of grief and joy, as in optics 'tis a proof that a colored ray of the sun passing through a prism is a composition of two others, when as you diminish or increase the quantity of either, you find it prevail proportionably more or less in the composition?"<sup>1</sup>

As to the value of the illustration I shall leave it to the reader to decide. Yet I cannot refrain from remarking that in this there seems to be pictured a continuity of thought which cannot be conceived of through vision.

"In our present enthusiastic devotion to the eye it is not alone the symmetry of the mind that is threatened nor the voice arts alone that will suffer. It may be that we are neglecting that which is in itself one of the richest sources of good. It has not yet been shown that the world of form is more worthy of our cultivation than the world of sound. 'There is something as yet unanalysed about sound' says Mr. Haweis 'which doubles and intensifies at all points the sense of living: when we hear we are somehow more alive than when we see. Apart from sound, the outward world has a dream-like and unreal look—we only half believe in it; we miss at each moment what it contains. It presents, indeed, innumerable pictures of still life; but these refuse to yield up half their secrets.'<sup>2</sup>

The starting-point of this paper was a suggestion by Dr. E. C. Sanford that I should investigate the figures of speech used in psychology. I am glad to express my indebtedness to Dr. Sanford both for this and for valuable direction in my investigations.

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<sup>1</sup> Hume Treat. II. 9.

<sup>2</sup> G. T. St. Patrick, *Rivalry of the High Senses*.